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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,872	03/16/2004	Hiromi Inada	H6810.0025/P025-A	1560

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DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
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Washington, DC 20037

EXAMINER

MOUTTET, BLAISE-L

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/800,872		INADA ET AL.	
	Examiner		Art Unit	
	Blaise L. Mouttet		2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/871,739.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. The amendment of February 25, 2005 has overcome the prior claim objection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 37 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Adams et al. US 5,466,934.

Adams et al. discloses, regarding claim 37, an electron microscope comprising:
a support (22) for supporting a specimen (24) (column 3, lines 5-9);
a deflector for deflecting an electron beam to the specimen to form images (not shown but inherent for the "electron steering" of column 3, lines 51-54);
an image pickup device (26) for obtaining the images (column 3, lines 10-22);
a processor (44) coupled to the image pickup device (26) being programmed for observing the specimen in a field of view of the electron microscope (column 3, lines 54-60), said programming comprising the acts of:

calculating a degree of coincidence of images obtained by differential optical conditions of the electron microscope (figure 3, step 98, column 6, line 58 – column 7, line 5, the pixel image data is created by "differential optical conditions" in terms of the

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change of lumination of screen 30 caused by backscattered electrons as explained in column 3, lines 10-21);

determining whether the image of the field of view is suitable or not for an observation based on calculated degree (figure 3, step 100, column 7, lines 6-8); and

moving the field of view to a next position when the image of the field of view is determined to be not suitable (figure 3, step 102, step 90, column 7, lines 9-17).

Adams et al. discloses, regarding claim 37, a method of observing a specimen in a field of view of an electron microscope comprising the acts of:

deflecting an electron beam to the specimen to form images (figure 3, step 68, column 5, lines 1-15);

acquiring said images from the specimen using an image pickup device (figure 3, step 70, column 5, lines 16-24);

observing the images in a field of view of the electron microscope using programming from a processor (control loop of figure 3, steps 72-102), said programming including the acts of:

calculating a degree of coincidence of images obtained by differential conditions (figure 3, step 98, column 6, line 58 – column 7, line 5);

determining whether the image of the field of view is suitable or not for an observation based on calculated degree (figure 3, step 100, column 7, lines 6-8); and

moving the field of view to a next position when the image of the field of view is determined to be not suitable (figure 3, step 102, step 90, column 7, lines 9-17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al. US 5,466,934 in view of Dougherty US 3,700,801.

Adams discloses an electron microscope with a support (22), deflector, image pickup device (26) and processor (44) as indicated in the 35 USC 102 rejection above.

Adams fails to disclose that the calculation of the degree of coincidence is a calculation of a phase-only correlation or a phase-amplitude correlation.

Dougherty discloses a phase only image correlation method to find differential data which has minimum sensitivity to distortion or other disturbances (column 5, lines

28-38 and lines 51-65) and that this image processing method may be applied to various fields of endeavor involving image processing (column 1, lines 15-23).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the phase only correlation method of Dougherty to find the differential data of the images of Adams et al.

The motivation for doing so would have been to find the degree of coincidence with minimal distortion as suggested by column 5, lines 28-38 of Dougherty.

Terminal Disclaimer

4. The terminal disclaimer filed on February 25, 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on US Application 09/871,739 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Arguments

5. Applicant's arguments filed February 25, 2005 have been fully considered but they are not persuasive.

The applicant has argued that the calculated degree of coincidence of Adams '934 is not obtained by differential optical conditions of the electron microscope as stated in the amended claims.

The examiner disagrees and notes that applicant's own specification indicates that "differential optical conditions" are related to optical images created by a scintillator

16 (page 10, lines 13-15 of applicant's specification). The prior art also uses a scintillator 30 in analysis of the differential images (column 3, lines 10-21 of Adams).

Thus this argument is misleading and completely without merit.

The applicant suggests that the degree of coincidence is not used in determining whether the field of view is suitable or not. However this determination is clearly described in relation to figure 3, step 100 of Adams as noted in the rejection.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet who may be reached at

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telephone number (571) 272-2150. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

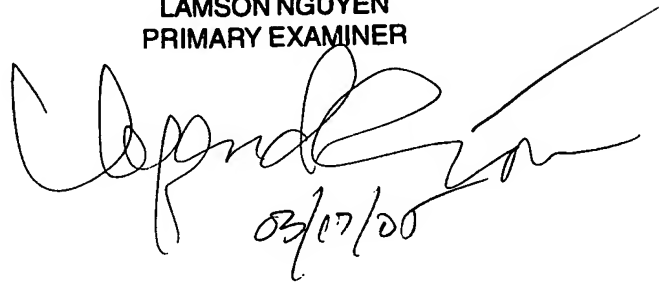
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet March 16, 2005

BM 3/16/2005

LAMSON NGUYEN
PRIMARY EXAMINER



03/17/05